UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/920,335	07/31/2001	Thomas E. Anderson	0016.0010US1	4127

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ART UNIT	PAPER NUMBER
2145	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	09/920,335	ANDERSON ET AL.
	Examiner	Art Unit	
	MINH-CHAU NGUYEN	2145	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 July 2001*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4,6-16,39-42 and 46* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4,6-16,39-42 and 46* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *31 July 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

This action is responsive to the amendment of the applicant filed on 03/19/07.

Claims 1-2,4,6-16,39-42 and 46 are presented for further examination.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 1-2,4,6-16,39-42 and 46 are rejected under 35 U.S.C. 103(a) as being

    unpatentable over Foster et al. (Foster) (US 2003/0202536A1), and further in

    view of Doshi et al. (Doshi) (US 6,529,499B1).

2. Claim 1, Foster teaches a method comprising:

    determining by a first network management device (i.e. network manager

    115 in figure 1), separate and distinct from a first router of a network (i.e. an IFM

    switch 110a in figure 1) (paragraph 20,31), whether the first router is meeting a

    service level for a first group of network traffic (i.e. a first group of traffic is a

    traffic from node 1 to node N+1 in figure 1) of the network serviced by the first

    router (i.e. the IFM switch is meeting a QOS guarantee such as a minimum level

    of bandwidth for the group between switches) (paragraph 69); and

    regulating a second group of network traffic of the network (i.e. a second

    group of traffic is traffic from node N to node N+1, and regulating the traffic is

equivalent to allocating (i.e. "the network traffic can also be monitored so that
allocations of communications to links can be adjusted as needed" in paragraph
69), also being serviced by said first router, to assist the first router in meeting
the service level for the first group of network traffic, the second group of network
traffic being separate and distinct from said first group of network traffic (i.e. to
assist the switch in meeting the QOS for the first group of traffic, the network
manager must ensure that sufficient bandwidth is available for the first
communication traffic by limiting the second group (i.e. other communications)
the use any of the same links. The limiting step is equivalent to the separating
and distinct the second group from the first group) (paragraph 69);

wherein said first group of network traffic comprises network traffic
destined for/sourced from first one or more network nodes of said network (i.e.
node 1 in figure 1), and said second group of network traffic comprises network
traffic destined for/sourced from second one or more network nodes of said
network (i.e. node N in figure 1) that are separate and distinct from said first one
or more network nodes.

Foster fails to teach blocking the second group to assist the first router
(IFM switch) in meeting the service level for the first group. However, Doshi, in
the same field of endeavor having closely related objectivity, teaches blocking
the second group to assist the first router (switch) in meeting the service level for
the first group (i.e. "Quality of Service in switched voice networks is guaranteed
because the governing precept is that it is preferable to block new call connection

attempts rather than allow a new connected call to degrade the performance of

established connected calls". From this phrase, the new call connection is same

as the second group of traffic and the connected call is same as the first group of

traffic) (Col. 1, L. 13-30).

Thus, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to have incorporated Doshi's teachings of blocking

the second group to assist the first router (switch) in meeting the service level for

the first group, in the teachings of Foster in integrated analysis of incoming data

transmissions, for the purpose of providing a guarantee as to the Quality of

Service (QOS) of transmissions in the networks.

3. Claim 2, Foster and Doshi disclose the invention substantially as claimed. Foster

    teaches wherein said service level is a selected one of a service level goal and a

    service level commitment of said first router for said first group of network traffic

    of the network serviced by said first router (i.e. service level is in accordance with

    class of service (COS), which among other factors, guarantee level of bandwidth)

    (paragraph 69).

4. Claim 4, Foster and Doshi disclose the invention substantially as claimed. Foster

    teaches wherein said first group of network traffic comprises network traffic

    destined for/sourced from a first client of a first network node of said network (i.e.

    network traffic from node 1 to node N+1 in figure 1), and said second group of

network traffic comprises network traffic destined for/sourced from a second

client of the same first network node of said network (i.e. network traffic from

node N to node N+1 in figure 1).

5. Claim 6, Foster and Doshi disclose the invention substantially as claimed. Foster

teaches wherein said method further comprises monitoring one or more network

traffic metrics (i.e. factors or guaraantee levels of bandwidth) associated with

said first group of network traffic that are at least partially indicative of whether

the first router is meeting said service level for said first group of network traffic

(i.e. monitoring the service level of a group (in figure 1) which among the factors

or guarantee levels of bandwidth) (paragraph 69).

6. Claim 7, Foster and Doshi disclose the invention substantially as claimed. Foster

teaches wherein said service level comprises a selected one of a reliability

service level and a performance service level (i.e. performing monitoring and

selecting reliability service level) (paragraph 69).

7. Claim 8, Foster and Doshi disclose the invention substantially as claimed. Foster

teaches wherein said monitoring is performed at said first networking device (i.e.

the network manager) (paragraph 69).

8. Claim 9, Foster and Doshi disclose the invention substantially as claimed. Doshi teaches wherein said monitoring is performed away from said first networking device (i.e. the network traffic is monitored at signaling gateway 250 and the virtual provisioning server 230 (i.e. network manager) also performs monitoring to control the flow routing with network) (figure 2; and Col. 6, L. 52-Col. 7, L. 14, L. 57-67).

9. Claim 10, Foster and Doshi disclose the invention substantially as claimed. Foster teaches wherein said method further comprises determining by the first network management device, whether said second group of network traffic substantially contributes to said first router's non-meeting of said service level for said first group of network traffic, and said regulating of said second group of network traffic is conditionally performed, upon determining said second group of network traffic substantially contributes to said first router is not meeting of said service level for said first group of network traffic (i.e. "The use of configurable label tables by switches allows a network manager to control how many and which communications will pass through each link on each switch, and thus the network manager can ensure that sufficient bandwidth is available for a communication by limiting the other communications that use any of the same links" and "The transmission priority assigned to data communications can be used to control how quickly those communications pass through intermediate routing devices, and thus can be used to control both latency and jitter")

(paragraph 69). Besides this, Doshi teaches a second network management device (i.e. signaling gateway 250) away from said first router (i.e. switch) performs monitoring and determining to control the flow routing with network (figure 2; and Col. 6, L. 52-Col. 7, L. 14, L. 57-67).

10. Claim 11, Foster and Doshi disclose the invention substantially as claimed. Doshi teaches wherein said first and second network management devices are separate and distinct network management devices (i.e. the network traffic is monitored at signaling gateway 250 (i.e. second network management device) and the virtual provisioning server 230 (i.e. first network management device) also performs monitoring to control the flow routing with network) (figure 2; and Col. 6, L. 52-Col. 7, L. 14, L. 57-67).

11. Claim 12, Foster and Doshi disclose the invention substantially as claimed. Foster teaches wherein said first and second network management devices are the same network management device (i.e. network manager in figure 1) (paragraph 68-69).

12. Claim 13, Foster and Doshi disclose the invention substantially as claimed. Doshi teaches wherein said method further comprises determining by a second network management device (i.e. signaling gateway 250), away from said first router (i.e. switch), where said regulating is to be performed (i.e. signaling gateway 250

performs monitoring and allocating of traffic can be adjusted to control the flow

routing with network) (figure 2; and Col. 6, L. 52-Col. 7, L. 14, L. 57-Col. 8, L. 27.

13. Claim 14, Foster and Doshi disclose the invention substantially as claimed.

Foster teaches wherein said regulating comprises regulating said first router (i.e.

an IFM switch 110a in figure 1 is one of a plurality of intermediate routing

devices) with respect to services provided by said first router to said second

group of network traffic (paragraph 69).

14. Claim 15, Foster and Doshi disclose the invention substantially as claimed.

Foster teaches wherein said regulating comprises regulating a second router (i.e.

other IFM switch 110a in figure 1 is other one of a plurality of intermediate routing

devices) of said network with respect to services provided by said second router

to said second group of network traffic (paragraph 69).

15. Claim 16, Foster and Doshi disclose the invention substantially as claimed.

Foster teaches wherein said method further comprises determining by the first

network management device, whether said second group of network traffic are

being regulated, and if said second group of network traffic are being regulated,

whether the regulation is to be moderated (paragraph 69). Besides this, Doshi

teaches a second network management device (i.e. signaling gateway 250)

performs monitoring, determining and adjusting to control the flow routing with

network (figure 2; and Col. 6, L. 52-Col. 7, L. 14, L. 57-67).

16. Claim 39, Foster teaches a method comprising:

determining by a network management device (i.e. network manager 115

in figure 1), separate and distinct from a router of a network (i.e. an IFM switch

110a in figure 1) (paragraph 20,31), whether the router is meeting a service level

for a first group of network traffic (i.e. a first group of traffic is a traffic from node 1

to node N+1 in figure 1) of the network serviced by the router (i.e. the IFM switch

is meeting a QOS guarantee such as a minimum level of bandwidth for the

group) (paragraph 69); and

regulating a second group of network traffic of the network (i.e. a second

group of traffic is traffic from node N to node N+1, and regulating the traffic is

equivalent to allocating (i.e. "the network traffic can also be monitored so that

allocations of communications to links can be adjusted as needed" in paragraph

69), also being serviced by said router, to assist the router in meeting the service

level for the first group of network traffic, the second group of network traffic

being separate and distinct from said first group of network traffic (i.e. to assist

the switch in meeting the QOS for the first group of traffic, the network manager

must ensure that sufficient bandwidth is available for the first communication

traffic by limiting the second group (i.e. other communications) the use any of the

same links. The limiting step is equivalent to the separating and distinct the

second group from the first group) (paragraph 69);

determining by the network management device, whether said second

group of network traffic substantially contributes to said router's non-meeting of

said service level for said first group of network traffic, and said regulating of said

second group of network traffic is conditionally performed, upon determining said

second group of network traffic substantially contributes to said router is not

meeting of said service level for said first group of network traffic (i.e. "The use of

configurable label tables by switches allows a network manager to control how

many and which communications will pass through each link on each switch, and

thus the network manager can ensure that sufficient bandwidth is available for a

communication by limiting the other communications that use any of the same

links" and "The transmission priority assigned to data communications can be

used to control how quickly those communications pass through intermediate

routing devices, and thus can be used to control both latency and jitter")

(paragraph 69).

determining by the first network management device, whether said second

group of network traffic are being regulated, and if said second group of network

traffic are being regulated, whether the regulation is to be moderated (paragraph

69).

Foster fails to teach blocking the second group to assist the router (IFM

switch) in meeting the service level for the first group, and a second network

management device, and the regulation is to be moderated to unblock the

second group. However, Doshi, in the same field of endeavor having closely

related objectivity, teaches blocking the second group to assist the router (switch) in meeting the service level for the first group (i.e. "Quality of Service in switched voice networks is guaranteed because the governing precept is that it is preferable to block new call connection attempts rather than allow a new connected call to degrade the performance of established connected calls". From this phrase, the new call connection is same as the second group of traffic and the connected call is same as the first group of traffic) (Col. 1, L. 13-30), and a second network management device (i.e. signaling gateway 250) away from said first router (i.e. switch) (i.e. the signaling gateway 250 performs monitoring, determining and adjusting to control the flow routing with network) (figure 2; and Col. 6, L. 52-Col. 7, L. 14, L. 57-67), and the regulation is to be moderated to unblock the second group (i.e. "In accordance with step 365, if VPNi bandwidth usage would be between the range from (C-W-D1) to (C-V), a new call set-up request for VPNi is accepted only if the bandwidth usage by VPNi has not exceeded its minimum allocation, Pi, otherwise the call is rejected" in (Col. 8, L. 7-11). According to this phrase, accepting means unblocking, rejecting means blocking; and if the new call (i.e. the second group) is being regulated (because its bandwidth usage is greater then (C-W-D2) in step 365 in figure 5), but if after connecting the new call that makes the bandwidth usage by VPNi still has not exceeded its minimum allocation (Pi), then the regulation is to be moderated by accepting (unblocking) the new call) (figure 5; and Col. 7, L. 56-Col. 8, L. 44).

Thus, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to have incorporated Doshi's teachings of blocking

the second group to assist the router (switch) in meeting the service level for the

first group, and a second network management device, and the regulation is to

be moderated to unblock the second group, in the teachings of Foster in

integrated analysis of incoming data transmissions, for the purpose of providing a

guarantee as to the Quality of Service (QOS) of transmissions in the networks.

17. Claim 40, Foster and Doshi disclose the invention substantially as claimed.

Foster teaches wherein said method further comprises:

monitoring packet drop rate associated with said first group of network

traffic (i.e. the network manager monitors a content (packet) analysis or load

balancing) associated with the first group of network traffic) (paragraph 64-66,

68-69); and

determining whether the first router is meeting said service level for said

first group of network traffic based on the packet drop rate (i.e. the network

manager determines whether the content (packet) analysis or load balancing is

met based on the rejection of a transmittal of the content) (paragraph 64-66, 68-

69).

18. Claim 41, Foster and Doshi disclose the invention substantially as claimed.

Foster teaches wherein said method further comprises:

monitoring a volume of data transmitted by the first router (paragraph

3,69); and

determining whether the first router is meeting said service level for said

first group of network traffic based on the volume (paragraph 3,69).

19. Claim 42, Foster and Doshi disclose the invention substantially as claimed.

Foster teaches wherein said method further comprises:

monitoring an average turn-around time (i.e. response times or other

indications of processing load) of packets transmitted by the first router

(paragraph 50,69); and

determining whether the first router is meeting said service level for said

first group of network traffic based on the average turn-around time of the

packets (paragraph 50,69).

20. Claim 46, Foster teaches system comprising:

a managed networking device (i.e. IFM switch 110) transmitting network

traffic to and from other networking devices (i.e. Node 1, Node N, and Node N+1)

(figure 1);

a sensor (i.e. network manager 115), located away from a managed

networking device, that determines whether the managed networking device is

meeting a service level for a first group of the network traffic (i.e. the network

traffic from node 1 to node N+1) serviced by the managed networking device by

monitoring a packet drop rate (i.e. a content (packet) analysis or load balancing)

associated with said first group of network traffic (i.e. the network manager

determines whether the content (packet) analysis or load balancing is met a QOS

guarantee such as a minimum level of bandwidth based on the rejection of a

transmittal of the content) (paragraph 64-66, 68-69);

the sensor, located away from a managed networking device, that

determines whether a second group of network traffic (i.e. the network traffic from

node N to node N+1) substantially contributes to said managed networking

device failure to meet the said service level for said first group of network traffic,

the second group of network traffic being also serviced by the managed

networking device, but separate and distinct from said first group of network

traffic (i.e. to meet the QOS for the first group of traffic, the network manager

must ensure that sufficient bandwidth is available for the first communication

traffic by limiting the second group (i.e. other communications) the use any of the

same links. The limiting step is equivalent to the separating and distinct the

second group from the first group) (paragraph 69), wherein said first group of

network traffic comprises network traffic destined for/sourced from first one or

more network nodes of said network (i.e. node 1 in figure 1), and said second

group of network traffic comprises network traffic destined for/sourced from

second one or more network nodes of said network (i.e. node N in figure 1) that

are separate and distinct from said first one or more network nodes, wherein the

sensor regulates the second group of network traffic of the network by signaling

the second networking device to assist the managed networking device in

meeting the service level for the first group of network traffic, if said second group

of network traffic is determined to substantially contribute to a failure to meet the

service level for said first group of network traffic (i.e. to assist the switch in

meeting the QOS for the first group of traffic, the network manager must ensure

that sufficient bandwidth is available for the first communication traffic by limiting

the second group (i.e. other communications) the use any of the same links. The

limiting step is equivalent to the separating and distinct the second group from

the first group) (paragraph 69).

Foster fails to teach a director, and blocking the second group to assist the

managed networking device (IFM switch) in meeting the service level for the first

group. However, Doshi, in the same field of endeavor having closely related

objectivity, teaches a director (i.e. signaling gateway 250, away from said

managed networking device (i.e. switch), performs monitoring, determining and

adjusting to control the flow routing with network) (figure 2; and Col. 6, L. 52-Col.

7, L. 14, L. 57-67), and blocking the second group to assist the managed

networking device (switch) in meeting the service level for the first group (i.e.

"Quality of Service in switched voice networks is guaranteed because the

governing precept is that it is preferable to block new call connection attempts

rather than allow a new connected call to degrade the performance of

established connected calls". From this phrase, the new call connection is same

as the second group of traffic and the connected call is same as the first group of traffic) (Col. 1, L. 13-30).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated Doshi's teachings of a director, and blocking the second group to assist the managed networking device (switch) in meeting the service level for the first group, in the teachings of Foster in integrated analysis of incoming data transmissions, for the purpose of providing a guarantee as to the Quality of Service (QOS) of transmissions in the networks.

Response to Arguments

Applicant's arguments filed 03/19/07 have been fully considered but they are not persuasive.

Applicant's arguments with respect to claims 1-2,4,6-16,39-42 and 46 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to MINH-CHAU N. NGUYEN whose telephone number is

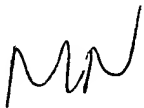(571)272-4242. The examiner can normally be reached on Monday-Friday from 8:00am

- 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, JASON D. CARDONE can be reached on (571) 272-3933. The fax phone

number for the organization where this application or proceeding is assigned is 571-

273-8300.

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USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Examiner: Minh-Chau Nguyen

Art Unit: 2145

JASON CARDONE
SUPERVISORY PATENT EXAMINER